AfterWork

AfterWork Data Science Fellowship

Below is the course outline for the **AfterWork Data Science Fellowship Program**.
The program is made up of 12 sprints which last a duration of 2 weeks each.
There's also a 1-week break in between the sprints.

Curriculum Outline	
Sprint I	**Introduction to Data Science** ● The Data Science Landscape ● The Data Science Project Life Cycle ● Excel Basics for Data Science ● Python Basics for Data Science ● Data Wrangling with Python ● Data Visualisation with Matplotlib
Sprint II	**Data Collection and Analysis** ● SQL Basics for Data Science ● Data Analysis and Reporting with SQL ● Business Metrics for Data Scientists ● Data Analysis and Reporting with Python ● Frequency Pattern Mining
Sprint III	**Data Storytelling** ● Data Visualisation with Seaborn ● Data Visualisation with Plotly ● Data Visualisation with Dash ● Data Visualisation with Tableau
Sprint IV	**R for Data Science and Code Versioning** ● Introduction to the Command Line ● Git Basics for Data Science ● R Basics for Data Science ● Data Wrangling with R ● Data Visualisation with R
Sprint V	**Statistical Data Analysis** ● Introduction to Sampling Techniques ● Statistical Data Analysis with Python ● Probability Theory ● Testing Hypotheses ● Basics of Testing Hypotheses in Business

Sprint VI	**Introduction to Machine Learning and Supervised Learning** ● Introduction to Machine Learning ● Model Quality and Improvements ● Classification and Regression Metrics ● Handling Class Imbalance
Sprint VII	**Supervised Learning** ● Linear Algebra for Data Science ● Regression Analysis Techniques with Python ● Classification Analysis Techniques with Python ● Ensemble Learning with Python ● Implementing New Functionality
Sprint VIII	**Optimizing Models and Unsupervised Learning** ● Feature Engineering with Python ● Hyperparameter Tuning with Python ● Clustering Analysis with Python ● Anomaly Detection ● Data Collection for Machine Learning
Sprint IX	**Natural Language Processing** ● Working with Lambda Functions ● Getting Started with Text Analysis ● Text Classification with Python ● Text Summarization with Python ● Web Scraping with Python
Sprint X	**Deep Learning** ● Basics of Deep Learning and Neural networks ● Optimizing Neural Networks ● Recurrent Neural Networks
Sprint XI	**Computer Vision** ● Working with Images in Python ● Convolutional Networks for Image Classification ● Time Series Analysis ● Time Series Forecasting
Sprint XII	**Launching Your Career** ● Career Expectations ● Preparing your Resume ● Building a Portfolio ● Searching for a Job ● Job Application Expectations ● Mock Interviews and Preparation